

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S85	4	(microseismic or seismic) and (doublet or multiplet) and (time-lag or (time adj lag))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/11 07:40
S67	6	S65 and doublet and (borehole or wellbore) and correlat\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:44
S66	54	S65 and doublet	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:44
S65	40134	(microseismic) or (seismic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:44
S64	17	(arrowsmith.in. eisner.in.) and (seismic or microseismic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:41
S63	315	arrowsmith.in. eisner.in. and (seismic or microseismic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:41
S62	892	arrowsmith.in. eisner.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:41

S61	48489	"8" and (borehole or wellbore)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:40
S60	4	S59 and doublet	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:38
S59	151	S55 and correlation	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:37
S58	158	S55 and (similarity or correlation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:37
S57	17	S55 and (first same second same trace)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:36
S56	17	S55 and (first same second same trace)\	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:36
S55	491	S54	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:36
S54	491	(microseismic) or (seismic with hydraulic with fractur\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 14:36

S53	7	S51 S52	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:48
S52	3	S50 and (pair with event)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:48
S51	5	S50 and doublet	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:48
S50	300	S49 and (borehole or wellbore)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:47
S49	491	(microseismic) or (seismic with hydraulic with fractur\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:47
S48	368	S46 not vinegar.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S47	51	("4428422"   "4686653"   "4888740"   "4891641"   "4910718"   "4992994"   "5010527"   "5189262"   "5212354"   "5290159"   "5594706").PN. OR ("5747750").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/08/10 12:46
S46	517	seismic and (hydraulic with fractur\$4) and (oil or hydrocarbon)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46

S45	52	S44 not vinegar.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S44	152	(borehole or wellbore) and microseismic and correlat\$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S43	152	(borehole or wellbore) and microseismic and correlat\$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S42	8	streamer and hydrofoil and flap and separated	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S41	66	702/15.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S40	86	367/42.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S39	286	367/40.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S38	402	367/38.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46

S37	8	("5377104"   "5963508"   "5996726"   "6131658"   "6442489"   "6462549").PN. OR ("6947843").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/08/10 12:46
S36	13	(earthquake or microseismic) and correlation and (doublet \$2 or multiplet\$2 or (multiple with acoustic with emissions))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S35	8	seismic and (earthquake or microseismic) and correlation and (doublet \$2 or multiplet\$2 or (multiple with acoustic with emissions))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S34	3	seismic and (passive with event) and correlation and (doublet)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S33	1	seismic and (passive with event) and correlation and (multiple with acoustic with emission\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S32	1	seismic and (passive with event) and correlation and (multiple with acoustic with emission\$3) and threshold	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S31	93	seismic and (passive with event) and correlation and threshold	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S30	1	seismic and (passive with event) and correlation and doublet and threshold	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46

S29	3	seismic and (passive with event) and correlation and (first adj receiver) and (second adj receiver)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S28	7	seismic and (first with second with (receiver or sensor or geophone or detector or hydrophone)) and (crosscorrelation or (cross adj correlation)) and (passive adj seismic)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S27	70	seismic and (first with second with (receiver or sensor or geophone or detector or hydrophone)) and (crosscorrelation or (cross adj correlation)) and coefficient and threshold	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S26	122	seismic and (first with second with (receiver or sensor or geophone or detector or hydrophone)) and (crosscorrelation or (cross adj correlation)) and coefficient	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46
S25	2	seismic and (first with second with (receiver or sensor or geophone or detector or hydrophone)) and (similarity same passive same event)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/10 12:46

### EAST Search History (I nterference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S86	4	(microseismic or seismic) and (doublet or multiplet) and (time-lag or (time adj lag))	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/11 07:40
S84	927	S83 and (borehole or wellbore)	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:46

S83	2655	(seismic or microseismic) and (first with second with (sensor or receiver or geophone))	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:45
S82	245	367/40,42.ccls.	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:45
S81	374	367/38.ccls.	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:45
S80	72	367/32.ccls.	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:44
S79	175	367/31.ccls.	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:44
S78	276	367/35.ccls.	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:44
S77	455	367/25.ccls.	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:44
S76	90	S75 and (similarity or correlation)	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:43
S75	261	(seismic or microseismic) and (doublet or (pair with event))	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:43
S74	216	S73 and (borehole or wellbore)	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:43
S73	771	S72 and (similarity or correlation)	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:42
S72	2010	(seismic or microseismic) and (doublet or (pair with (events or traces or signals)))	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:42
S71	8	S70 and (seismic or microseismic)	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:41
S70	348	arrowsmith.in. eisner. in.	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:41

S69	19889	"S46" not vinegar.in.	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:40
S68	401	(microseismic) or (seismic with hydraulic with fractur\$4)	US-PGPUB; USPAT; UPAD	OR	ON	2009/08/10 14:40

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